

APPLICANT: Roman VITENBERG
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AMENDMENTS TO THE SPECIFICATION

Kindly replace the paragraph on Page 1 that begins with the words "Existing plain old telephone..." with the following paragraph:

A1
CONCL ✓ --Existing plain old telephone service (POTS), based on a twisted pair telephone cable, is the most widespread communication infrastructure in the world. Technologies have been developed which permit ~~to utilize the use of~~ existing telephone cables for the high rate data transmission characteristics of digital communication. These include the digital multitone signal technology that ~~permit to use~~ allows the twisted pair telephone subscriber lines to be used for multi media and high-speed data communication. Asymmetrical digital subscriber line (ADSL) allows the transmission of data ~~or~~ with a rate exceeding 8 Mb/s to a subscriber ~~premise~~ premises, and at a rate as high as 1 Mb/s in bi-directional communication. Such rates expand existing access capacity by 50 ~~fold~~ fold or more without the need for new cabling. ADSL can transform the existing public telephone network from one limited to voice, text and lower resolution graphics to a powerful, ubiquitous system capable ~~to~~ of bringing multimedia, including full motion video, to every home.--

✓ Kindly replace the paragraph on Page 1, that begins on Page 1 and that continues on Page 2, and that begins with the words "An ADSL circuit includes ...", with the following paragraph:

A2
CONT'D --An ADSL circuit includes an ADSL modem on each end of a twisted pair telephone line, creating three information channels-- a high speed downstream channel, a medium speed duplex channel; and a POTS channel. The POTS channel is separated from digital modems by filters, thus guaranteeing uninterrupted POTS, even if ADSL fails. The high speed downstream channels support a bit rate from about 1.5 to about 8 Mb/s, while duplex channels support rates which range between 16 to 1040 kb/s. Downstream data ~~rate~~ rates depend on a number of factors including the lengths of the copper line, the wire gauge, the presence of

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A2
CONCL.

bridged taps, and cross cable interference. Line attenuation obviously increases with line length and frequency and decreases as ~~wire~~ diameter increases. A typical ADSL line will transmit at the rate of 1.5 Mb/s, with a wire diameter of 0.5mm, over a 5.5 km and at ~~an~~ 8 Mb/s over a distance of 3.7 km for a wire of the same diameter. For wire with a 0.4 mm diameter, the respective distances are 4.6 km and 2.7 km. --

✓

Kindly replace the paragraph on Page 2 that begins with the words "One problem of ADSL systems ..." with the following paragraph:

A3
CONCL.

--One problem of ADSL systems is the need to rewire existing telephone home networks within ~~a~~ subscriber ~~premise~~ premises and to place special splitter devices for separating voice and ADSL ~~signal~~ signals to ~~a~~ subscriber ~~premise~~ premises. In order to eliminate splitter and rewiring of home networks, a G.Lite ADSL system was developed, in which the separation between the ADSL and the voice signals is realized by means of special microfilters placed serially in the line connecting each home telephone device to the external line. However, the G.Lite system supports a bit rate of up to 1.5 Mb/s only in a downstream direction, which is too slow for a variety of applications including, in particular, video-on-demand service. Furthermore, the microfilter associated with a telephone device decreases the quality of voice communication.--

✓

Kindly replace the paragraph on Page 2 that begins with the words "In multi apartment buildings..." with the following paragraph:

A4
CONCL.

-- In multi-apartment buildings, the telephone lines typically reach a central box and from there telephone lines extend to each of the apartments. In existing systems, such inter-building wiring is also not suitable for high-speed data communication. Typically, such inter-building wiring makes use of flat pair cables, which have unpredictable characteristics and are highly sensitive to RF noise. --

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✓ Kindly replace the paragraph on Page 2, that begins on Page 2 and that continues on Page 3 and that begins with the words "Another problem of existing ADSL ...", with the following paragraph:

AS
CONCL. --Another problem of existing ADSL systems is that a customer must have an ADSL home modem and a personal computer at the subscriber ~~premise~~ premises. Every home device which requires high-speed data service from a telephone station, such as a video phone, digital TV, hi-fi digital audio, etc., must be connected to an ADSL home modem through a computer, typically a personal computer (PC). In practice, this means that a location, to make use of an ADSL system, with intra-location network capability, needs two independent networks: an existing telephone network and an additional digital data network. --

✓ Kindly replace the paragraph on Page 3 that begins with the words "In accordance with the present invention..." with the following paragraph:

AG
CONCL. --In accordance with the present invention, a digital subscriber line communication system (DSLCS) is provided, which permits voice and data service to a ~~subscriber premise~~ subscriber's premises using existing into and within (intra) building wiring without the need for installing any special communication equipment inside the ~~subscriber premise~~ subscriber's premises. Any device in the home requiring high speed data communication from a communication service provider, e.g. a video phone, a digital TV, hi-fi digital audio device, a personal computer, etc., may be connected directly to existing telephone lines inside the subscriber's premise. Subscribing to an ADSL system does not require any laborious installation and in particular the subscriber does not require an ADSL modem and may get some special data services, e.g. for a digital TV or the like, without using a computer.--

✓ Kindly replace the paragraph on Page 3 that begins with the words "In accordance with the present invention use is made..." with the following paragraph:

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A7
CONCL

--In accordance with the present invention, use is made of a novel subscriber converter, that links between the twisted pair communication cable connecting to the central office of a communication service provider and the local wiring which leads to the subscriber's ~~premise premises~~. The subscriber converter has a splitter-isolator device that passes POTS-related signals ~~therethrough~~ through without attenuation, while converting HPN signals from a ~~subscriber premise~~ subscriber's premises to xDSL signals transmitted to the CO and *vice versa*. --

✓

Kindly replace the paragraph on Page 4 that begins with the words "It should be explained ..." with the following paragraph:

A8
CONCL

--It should be explained that the term "*local communication box*" or "*local box*" used herein means ~~to denote~~ a central point to which both the subscriber communication line to the central office and the local wirings from the subscriber ~~premise~~ premises connect. Physically, such a "*local box*" may assume a form other than a box *per se*. It may be housed in more than one casings or at times may not be housed in a casing at all but may rather be included within the framework of a certain facility, within an enclosure, at times together with other equipment. Furthermore, as may also be appreciated, some of the associated devices which are described below as being included within a communication box, e.g. the video server, may at times be physically included as a separate device connected to a box including the subscriber converter. --

✓

Kindly replace the paragraph on Page 4 that begins with the words "one or more local communication boxes..." with the following paragraph:

A9
CONCL

--one or more local communication boxes for each group of SPs, each group consisting of one or more SPs linked to the communication box by local wirings; --

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✓ Kindly replace the paragraph on Page 5 that begins with the words "one or more local communication boxes..." with the following paragraph:

A10
CONCL - --one or more local communication boxes linked to SPs of the group by local wirings and linked to a central office of a communication service provider by twisted pair subscriber telephone lines, comprising one for each SP of the group; --

✓ Kindly replace the paragraph on Page 9 that begins with the words "Building 107 includes ..." with the following paragraph:

A11
CONCL -- Building 107 includes a number of subscriber premises 109, typically each being included in a separate apartment of the building, as well as a local central communication box 123 with twisted pair cables 121 leading into box 123. Box 123 is also connected by a plurality of intra-building cables 111, to each of the subscriber premises 109, cables 111 being typically a flat pair cable (although at times it may also be a twisted pair). The subscriber ~~premise~~ premises, in accordance with this embodiment, comprises one or more telephone devices 115 (only one shown in the illustration of Fig. 1) and one or more computers, typically personal computers (PCs) 113 (two are illustrated in Fig. 1). Each of PCs 113 is connected directly to a connector 117 of the telephone line 119 through an associated or integral HPN (home phone network) interface device 114. The telephone device 115 is also connected to telephone 119 through a similar connector. --

Kindly replace the paragraph on Page 9 that begins with the words "The structure of an ..." with the following paragraph:

A12
CONT'D --The structure of an xDSL/HPN converter 125 is shown in Fig. 2. It comprises a splitter-isolator 203, including a high-pass filter 203A, a low-pass filter 203B and an HPN line transformer 203C, linking between an input connector 205 and an output connector 207, an xDSL analog front end (AFE) module 209 coupled to input connector 205 via capacitors 210 of a high-pass filter 203A, an HPN AFE module 211, coupled to output connector 207 via

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A12
CONCL.

solenoids 212 of transformer 203C and a digital xDSL/HPN converter module 213 coupled to xDSL AFE module 209 and to HPN AFE module 211. A computer server 215 is coupled to converter module 213 and to a digital interface port 217. Input connector 205 and output connector 207 are connected, respectively, to twisted pair cable 121 and to intra-building cable 111. --

✓ Kindly replace the paragraph on Page 10 that begins with the words "Voice signals from telephone..." with the following paragraph:

A13
CONCL.

--Voice signals from telephone 115 inside the subscriber ~~premise~~ premises pass through cable 111 and then through splitter isolator ~~103-203~~ of subscriber converter 125, without any attenuation. Data signals from PC 113 are converted to HPN line signals by the HPN interface device 114 and are then converted to ADSL line signals within the subscriber converter 125. The HPN line signals are first converted into a digital form by the HPN AFE device 211 and then pass through the digital xDSL/HPN converter module 213, which, through a digital signal processing, decodes the digital data which can subsequently be stored within an internal memory of device 213. A unit within the xDSL/HPN converter module 213 reads the data, e.g. from the internal memory, and then, through a digital signal processing, converts the data to discrete xDSL signals. The xDSL AFE module 209 then converts the discrete xDSL signals to analog xDSL line signals, which are then transmitted through input connector 205 and cables 121 to modems 106 of CO 103. --

✓ Kindly replace the paragraph on Page 11 that begins with the words "The conversion of ..." with the following paragraph:

A14
CONT'D

--The conversion of line xDSL signals transmitted through cable 121 from the CO, to HPN also takes place within subscriber converter 125, in a similar way, *mutatis mutandis*. Received xDSL signals are converted by the xDSL AFE module 209 into a discrete digital form and ~~is~~ are then processed by the digital xDSL/HPN converter module which decodes the

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A14
CONCL.

digital data. The digital data may be stored in the internal memory of device 213. Another unit of the xDSL/HPN converter module 213 reads the data, e.g. from the internal memory, and then, through a digital signal processing, converts the data to discrete HPN signals. The HPN AFE module 209 then converts the discrete HPN signals to analog HPN line signals.--

✓ Kindly replace the paragraph on Page 11 that begins with the words "The DSLCS of the invention ..." with the following paragraph:

A15
CONCL.

--The DSLCS of the invention has several important features. For one, in installing the DSLCS there is no need for ~~rewiring to rewire~~ of existing intra-building wires as in the case of full rate ADSL and there is further no need for microfilters like in the case of splitterless ADSL. Further, the DSLCS of the invention achieves high performance communication with the xDSL office equipment, as it uses the twisted pair telephone cables directly connected to a subscriber converter. This decreases noise and RF interference on the xDSL line, as compared to existing systems, and terminates ~~bridge- bridged tapes taps~~ problems common in a splitterless ADSL.--

✓ Kindly replace the paragraph on Page 11 that begins with the words "Another important feature..." with the following paragraph:

A16
CONCL.

--Another important feature of the invention is that every PC in the subscriber ~~premise~~ premises may be connected to the CO at the same time, through the subscriber converter. Furthermore, any device in the subscriber ~~premise- premises~~ that needs high speed data services from a communication service provider, such as video phones, digital TV, hi-fi digital audio and others, may be connected directly to existing telephone connectors inside the premises, with no need to connect such devices, via a computer.--

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✓ Kindly replace the paragraph on Page 11, that begins on Page 11 and that continues on Page 12, and that begins with the words "The computer server ...", with the following paragraph:

A17
CONCL

--The computer server of the subscriber converter may support many different applications. For example, the computer server may, in accordance with some embodiments of the invention, replace the subscriber's PC. For this purpose, the subscriber ~~premise~~ premises may include a terminal device which may execute functions such as video phone, personal computer function, internet connection, remote control to different home utilities, and others.--

✓ Kindly replace the paragraph on Page 12 that begins with the words "Reference is now being made to ..." with the following paragraph:

A18
CONCL

--Reference is now being made to Fig. 3 showing, by way of a ~~block~~ block diagram, the structure of a subscriber converter 325 in accordance with another embodiment of the invention. This subscriber converter utilizes the ADSL DMT standard for communication with the CO and the HPNA-2 standard for intra-building communication. This converter may support ~~a~~ home network communication with a bit rate of up to 10 Mb/s, a downstream bit rate from the CO at up to 10 Mb/s (over a line having a distance of up to 3 Km) and an upstream bit rate to the CO of 1 Mb/s.--

✓ Kindly replace the paragraph on Page 12 that begins with the words "The splitter isolated ..." with the following paragraph:

A19
CONCL

--The splitter ~~isolated~~ isolator 403 comprises high-pass filter 421, a low-pass filter 423 and an HPN line transformer 425.--

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✓ Kindly replace the paragraph on Page 12, that begins on Page 12 and that continues on Page 13, and that begins with the words "An input ADSL signal...", with the following paragraph:

A20
CONCL.

--An input ADSL signal from the twisted pair 321 ~~inputs~~ enters the ADSL AFE device 409 through high-pass filter capacitors 424. ~~Voice-~~ A voice signal passes through the low-pass filter 423, having ~~typically band widths~~ a typical bandwidth of about 8 kHz, ~~and given~~ Given the fact that the frequency diapason of the voice signal is about 0.3-4 kHz, it passes ~~therethrough~~ through low-pass filter 423 without attenuation. Against this, ADSL line signals are allocated in a diapason of about 30 kHz-1.1MHz. ~~the~~ The HPNA-2 signals are allocated in a diapason of 4 MHz-10MHz. Thus, the low-pass filter 423 has a very high attenuation for ADSL and HPNA-2 signals (about 60-80 dB) and thus provides an effective isolation of such signals between input connector 405 and output connector 407. HPNA-2 signals are routed into intra-building wiring 311 through the line transformer 425, which has a very low impedance for voice signals. An output capacitor 427 of low-pass filter 423 has a very low impedance for the HPNA-2 signals.--

✓ Kindly replace the paragraph on Page 13 that begins with the words "ADSL AFE module ..." with the following paragraph:

A21
CONT'D

--ADSL AFE module 409 comprises an ADSL line transformer 429, a line driver integrated circuit (IC) 431 and ~~a~~ an ADSL AFE IC 433. Resistors 435 match the impedance of device 409 with the impedance of twisted pair 321. Line driver ~~431~~ 433 and the ADSL AFE IC 431 may be selected from a variety of such devices known *per se*. ADSL AFE IC 433 comprises an analog receiver filter 451, an analog transmitter filter 453, analog-to-digital converter (ADC) 455, digital-to-analog converter (DAC) 457 and a digital parallel interface (DPI) block 459. The ADSL AFE IC 433 converts the received DMT signal to an output word, ~~an~~ and converts an input digital word into an analog DMT signal. The digital word may,

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A21
CONCL

for example, be a 14 bit word. Output digital words are outputted from ADSL AFE device 409 through output bus 463 and input digital words are inputted through input bus 461. --

✓ Kindly replace the paragraph on Page 13, that begins on Page 13 and that continues on Page 14, and that begins with the words "HPNA-2 AFE module ...", with the following paragraph:

A22
CONCL

--HPNA-2 AFE module 411 may be selected from a wide variety of available devices known *per se*. The HPNA-2 AFE module 411 comprises a line driver 465, a receiving filter 467, an ADC 469, a DAC 471 and a DPI 473. The HPNA-2 module 411 converts received QAM signals to output digital words and converts input digital words into a QAM signal. The digital words may, for example, be 12 bit digital words. The input digital word is inputted to the HPNA-2 module 411 by input bus 475 and the output digital word is outputted through output bus 477. The digital ADSL/HPNA-2 converter module 413 includes a ~~VSLI~~ VLSI circuit. It comprises a first DSP 479, a first program memory 481 loaded with a micro-program for the ADSL signal processing, a second DSP 483, a second program memory 485 loaded with a micro-program for the HPNA-2 signal processing, a data exchange controller 487, a buffer RAM 489 and a control processor 491. The first DSP 479 is controlled by the micro-program in first program memory 481 and is coupled to the ADSL AFE device 433 by input and output buses 461, 463. The second DSP 481 is controlled by the micro-program in second program memory 485 and is coupled to the HPNA-2 AFE module 411 by input and output buses 475, 477. Control ~~purser~~ processor 491 may be coupled to an optional server computer 415, the latter being coupled to a digital interface port 417. --

✓ Kindly replace the paragraph on Page 14 that begins with the words "In operation, QAM line signals..." with the following paragraph:

A23
CONT'D

--In operation, QAM line signals from an HPNA-2 interface module associated with a computer in the subscriber ~~premise~~ premises, ~~is~~ are transmitted through the intra-building

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A23
CONCL- wiring 311 to output connector 407. Voice signals pass without attenuation through a-splitter-isolator 403, in a similar manner as that described in connection with the embodiment of Fig. 2. QAM line signals are converted into a digital form by the HPNA-2 AFE module 411 and then passed to second DSP 483 of the digital ADSL/HPNA-2 converter module 413, which, through signal processing, decodes the digital QAM signal. The decoded data may be stored in buffer RAM 489. First DSP 479 receives the information data, e.g. reads this data from RAM 489, and through digital signal processing converts this data to discrete DMT signals which are ~~outputted~~ output through bus 461 to ADSL/HPNA-2 converter 413. Received DMT signals are converted by the ADSL AFE device 409 to analog DMT line signals.--

✓
Kindly replace the paragraph on Page 14 that begins with the words "An optional server computer..." with the following paragraph:

A24
CONCL --An optional server computer 415 may be provided, coupled to control processor 491, through a-digital interface port 417. This computer server may provide for a variety of different applications, ~~similarly-s~~ similar to that described above in connection with Fig. 2. --

Kindly replace the paragraph on Page 14, that begins on Page 14 and that continues on Page 15, and that begins with the words "Reference is now being made...", with the following paragraph:

A25
CONT'D --Reference is now ~~being-made~~ to Fig. 4 showing a schematic representation of another embodiment of a DSLCS, generally designated 301 in accordance with an embodiment of the invention. A local box 323 comprising subscriber converters 325, of the kind shown in Fig. 3, receives twisted ~~pairs~~ pair telephone cables 321 and is connected through intra-building wiring 311 to the different subscriber premises 308, 309 and 310. As will be appreciated, although three subscriber premises are illustrated, this is an example only to illustrate some different types of subscriber network configurations within a-subscriber ~~premise~~ premises. Subscriber premises 309 is are similar to subscriber ~~premise~~ premises 109

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A25
CONCL

shown in Fig. 1 with the same components designated by the same reference numerals, shifted by 200. The subscriber premises ~~309~~ 308 ~~comprises~~ comprise a video phone 354, an IP telephone 355, a regular telephone device 315 and a printer 357. Video phone 354 and IP telephone 355 are connected to telephone line 319 by HPNA-2 interface blocks 314, while telephone 315 is directly connected to line 319. The IP telephone 355, the videophone 354 and the telephone 315 may work simultaneously to provide three voice channels with the CO. There is essentially no limit to the number of IP telephones that may be connected to the subscriber line (typically more than 20 units). The videophone 354, may, in some embodiments of the invention, work in conjunction with the optional computer server 415, in which case, the video phone may support internet service. Also included in subscriber ~~premise~~ premises 308 is a printer 357 which is linked to line 319 also through an HPNA-2 interface 314 and may again operate in conjunction with the computer server 415. --

✓
Kindly replace the paragraph on Page 15 that begins with the words "Subscriber premise ..." with the following paragraph:

A26
CONCL

--Subscriber ~~premise~~ premises 310 ~~comprises~~ comprise an HD-TV 335, a terminal device 337, a DVD device 341, a digital audio recorder 339, all connected to the telephone line by means of an HPNA-2 interface block 314. Also included in ~~premise~~ premises 310 is a common telephone 315, directly connected to line 319. Subscriber ~~premise~~ premises 310 further ~~comprises~~ comprise a wireless set-top box 343 that may control different home devices and mechanisms by means of RF frequency. --

←
Kindly replace the paragraph on Page 15 that begins with the words "The HD-TV..." with the following paragraph:

A27
CONT'D

--The HD-TV 335 may receive video programs transmitted from the CO, and may also display a-video films transmitted from DVD device 341. The terminal device 337 is coupled to and works in conjunction with the computer server of the subscriber converter to replace a

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A27
CONCL. ✓
home PC and may be used for control of all devices connected to telephone line 319. As may be appreciated, the subscriber converter is continuously in operation and may be programmed by terminal device 337 to monitor other home devices and appliances through the wireless set-top box 343. --

✓
Kindly replace the paragraph on Page 16 that begins with the words "In a premise configuration ..." with the following paragraph:

A28
CONCL. ✓
--In a ~~premise~~-configuration of the type of ~~premise~~ premises 310, many services and applications may be obtained without the need for a home PC at the subscriber ~~premise~~ premises such as, for example, printing newsletters, electronic mail service, fax service, Internet service, and others. --

✓
Kindly replace the paragraph on Page 16 that begins with the words "A DSLCS ..." with the following paragraph:

A29
CONCL. ✓
--A DSLCS 601 in accordance with another embodiment of the invention is shown schematically in Fig. 5. In this figure, like components to those of Fig. 1 were given like reference numerals shifted by ~~100~~ 200, and the reader is referred to the description of Fig. 1 for an explanation of their nature and function. Building 307 of this embodiment comprises, within box 323, a video server 375 linked through interface cable 379 to interface ports 380 of subscriber converter 325. HD-TV set 335 comprises ~~a~~ an MPEG decoder 351 and an HPNA-2 interface device 314, linked, through socket 317, to telephone line 319. Data network 337 is linked to a video-service provider 302. Video server 375 ~~permits a customer~~ provides a video-on-demand service, a video-library service as well as other database ~~service~~ services. --

Kindly replace the paragraph on Page 16 that begins with the words "One embodiment of a video server..." with the following paragraph:

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A30
CONCL.

--One embodiment of a video server 375 is illustrated ~~by in~~ block diagram, format in Fig. 6. Video server 375 comprises a large size memory 501, coupled to a memory controller 503; a host processor 505; a plurality of subscriber channels, one for each subscriber converter, each comprising a buffer RAM 509 linked to memory 501 by means of bus 511, each buffer RAM being coupled to an interface controller 507 which is in turn connected to interface cable 379; high speed interface ports 513 and 517, both connected to a demultiplexer 515 and coupled to the host processor 505; and a plurality of RAMs 519, one for each subscriber converter, coupled to memory 501 by means of bus 521.--

Kindly replace the paragraph on Page 16, that begins on Page 16 and that continues on Page 17, and that begins with the words "The host processor ...", with the following paragraph:

A31
CONCL. --The host processor controls the different devices or modules of a video server 375 and is controlled by a program which may be loaded from a floppy disk, from a CD ROM, etc., or from the CO, ~~channel 201 of~~ through the subscriber converters. The host processor may be directly coupled to devices within the subscriber converter for control of their operation, and may also communicate with the office xDSL modem, at the CO. The host processor supports video-on-demand service and video library service for each of the customers linked to local box 323. The high speed port 513 and 517 as well as the as demultiplexer 515 are useful for a connection to external devices, as will be described below with reference to two applications, video-on-demand service and video-library service. --

Kindly replace the paragraph on Page 17 that begins with the words "The DSLCS of Fig. 5 ..." with the following paragraph:

A32
CONT'D --The DSLCS of Fig. 5 provides video-on-demand service, e.g. as described in the following. A customer may access computer server 415 either from a PC 313 or from a terminal device 337 and may order a video film, e.g. by sending to the host computer an

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A32
CONCL.

Internet URL code. Video server 375 then establishes communication with video-provider 302. The video film may be transmitted by data packets with a bit rate, for example, of 1.5 Mb/s by using ADSL downstream communication protocol or at a higher rate by the use of VDSL protocols, as available. Each data packet includes an ID number that comprises information about the transmitted film and the serial number of the packet. The received data packet transmits through interface port 380 to video server 375. The interface controller 507 then ~~rights-writes~~ the data packet into buffer RAM 509. The host processor reads the ID number of the data packet stored in each buffer RAM 503 and then ~~rights-writes~~ the packet into memory 501 together with the ID numbers to eventually produce a video film file. After the end of the transmission, the host processor may insert the name of the file into a catalog and send a message to the customer. The film may then be accessed by the relevant subscribers. The film may be retrieved from the memory and then transmitted to HD-TV 335 through HPN interface 314 and decoder 351. --

✓ Kindly replace the paragraph on Page 17, that begins on Page 17 and that continues on Page 18, and that begins with the words "Fig. 7 illustrates...", with the following paragraph:

A33
CONT'D

--Fig. 7 illustrates a DSLCS 801 in accordance with another embodiment of the invention. Most components of the system are the same ~~to~~ as those of Fig. 5 and the reader is referred to the relevant description ~~below-above~~ for an understanding of their nature and function. A DSLCS 801 in accordance with this embodiment comprises a satellite antenna 369, typically placed on the building's roof, and connected by a coaxial cable 365 to a TV satellite receiver 367, placed inside the local box 323. Satellite receiver 367 is associated with an MPEG coder 361 and a multiplexer ~~366-~~ 363, connected to video server 375 ~~by means of length to video server 375~~ by means of a coaxial cable 378. An interface cable 381 connects receiver 367 to an interface port of video server 375. In this embodiment, the customer has the choice of ordering a broadcast, a video, etc., through satellite communication in addition to his ability to obtain such service through the CO 303. Furthermore, satellite communication may

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A33
CONCL

also be used in this embodiment for a variety of other services including, for example, Internet services. --

✓
Kindly replace the paragraph on Page 18 that begins with the words "Fig. 8 illustrates..." with the following paragraph:

A34
CONCL

--Fig. 8 illustrates a DSLCS 901 in accordance with another embodiment of the invention, which additionally supports also cable TV. In this figure, like components to those of Fig. 7 have been given like reference numerals and the reader is referred to the description above for an explanation of their nature and function. --

✓
Kindly replace the paragraph on Page 18 that begins with the words "A cable TV receiver..." with the following paragraph:

A35
CONCL

--A cable TV receiver 383 is included within local box 323 and is connected to different cable TV providers 304, typically by coaxial cables 385. Each cable TV receiver 383 is connected to a multi-channel MPEG coder 387 which is, in turn, linked to multiplexer 366, 363, connected to video server 375. The system 901 provides data in both services from the CO, TV satellite broadcast services and cable TV service, all of which can be accessed by the customer through his HD-TV television set 335 with its associated decoder 351 and HPN interface block 314.--

Kindly replace the paragraph on Page 18, that begins on Page 18 and that continues on Page 19, and that begins with the words "Another embodiment...", with the following paragraph:

--Another embodiment of a DSLCS of the invention is shown in Fig. 9. System 1001 of this embodiment includes various components included in embodiments described above and the reader is referred to the above description for an explanation of their nature and

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A36
CONCL.

function. In the system of embodiment 1001, included in local box 323 is a fiber optical receiver ~~94~~ 391 connected ~~to~~ via an optical cable 393 to a high speed data service provider 395 and through high speed data link 378 to a high speed interface port of video server 375. In order to realize high speed data service, HPN blocks 314 will be of the high speed (100 Mb/s or higher) HPNA-3 interface devices. A fiber cable, as known, may support a bit rate of up to about 155 Mb/s. --

✓

Kindly replace the paragraph on Page 19 that begins with the words "As will be appreciated..." with the following paragraph:

A37
CONCL.

--As will be appreciated, the specific embodiments described herein are merely ~~an~~ example ~~examples~~ and a large number of changes, or variations are possible, all being clear to the man of the art, all encompassed within the invention as defined herein. The above description is thus an illustration of the full scope of the invention and ~~does~~ is not ~~intend~~ intended to be limiting. --